

**ABSTRACT OF THE DISCLOSURE**

Methods and systems are provided for provisioning a network by identifying the classes of traffic to be transported in the network as well as the QoS criteria of the identified classes of traffic. By simulating the classes of traffic, one or more QoS mechanisms and their associated parameters may be determined. The statistical multiplexing gains of the classes of traffic may also be determined based on the simulation. Then, one or more resources in the network may be allocated based on the QoS mechanisms and parameters as well as the multiplexing gains.